

WHAT IS CLAIMED IS:

1. A digital broadcast method for supporting DVD recording, comprising:

providing a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs;

5 packing said video elementary stream, said audio elementary stream and said navigation data stream into a transport stream; and

broadcasting said transport stream.

2. The method of claim 1, wherein, said packing is carried out according to a digital broadcast standard, and said navigation data stream is loaded into the
10 transport stream as a private stream of the digital broadcast standard.

3. The method of claims 1 or 2, wherein the navigation data includes in-stream data and out-stream data.

4. The method of claims 3, wherein said in-stream data includes data for searching and data for reproduction control.

15 5. The method of claim 3, wherein said out-stream data includes data for generating menus.

6. The method of claim 4, wherein said in-stream data includes data for connecting networks.

7. The method of claim 3, wherein the in-stream data includes video and/or audio
20 data selected by a broadcaster.

8. A method for receiving and recording DVD digital broadcast, comprising:

receiving a broadcast transport stream;

acquiring a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs from the transport stream;

synthesizing said video elementary stream, audio elementary stream and navigation data stream into a DVD program stream; and

5 recording the DVD program stream onto a recording medium in a DVD format.

9. The method of claim 8, wherein the transport stream complies with a digital broadcast standard, the navigation data stream is loaded into the transport stream as a private data stream of the digital broadcast standard.

10. The method of claims 8 or 9, wherein the navigation data includes in-stream data and out-stream data and said synthesizing includes:

separating the navigation data into the in-stream data and the out-stream data;

15 synthesizing the in-stream data, the video elementary stream and the audio elementary stream into the DVD program stream and caching the out-stream data;

and said recording includes:

recording the out-stream data onto said recording medium.

11. The method of claim 10, wherein said in-stream data includes data for searching and data for reproduction control.

20 12. The method of claim 10, wherein said out-stream data includes data for generating menus.

13. The method of claim 10, wherein said in-stream data includes data for connecting networks.

14. The method of claim 10, wherein said in-stream data includes video and/or audio data selected by a broadcaster.

5 15. A digital broadcast system for supporting DVD recording, comprising:

program source means, for generating a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs; and

10 digital front end means, packing said video elementary stream, said audio elementary stream and said navigation data stream from said program source means into a transport stream and outputting the transport stream to a broadcast network for broadcasting.

15 16. The system of claim 15, wherein said digital front end means packs said video elementary stream, said audio elementary stream and said navigation data stream into said transport stream according to a digital broadcast standard, wherein said navigation data stream is loaded into said transport stream as a private stream of the digital broadcast standard.

17. The system of claims 15 or 16, further including a plurality of receiving means, wherein at least one of them has a DVD recording function.

20 18. A device for receiving and recording DVD digital broadcast, comprising:

receiving means, receiving a broadcast transport stream;

acquiring means, acquiring a video elementary stream, an audio elementary stream and a navigation data stream of at least one of DVD programs from said transport stream;

synthesizing means, synthesizing said video elementary stream, said audio elementary stream and said navigation data stream into a DVD program stream; and

5 DVD producing and recording means, recording the DVD program stream onto a recording medium in a DVD format.

19. The device of claim 18, wherein said transport stream complies with an existing digital broadcast standard, the navigation data stream is loaded into said transport stream as a private data stream of the digital broadcast standard and said acquiring means includes:

10 a demultiplexer, for demultiplexing said transport stream and acquiring video data, audio data and navigation data of a program;

video decoder, for decoding said video data and generating the video elementary stream;

15 audio decoder, for decoding said audio data and generating the audio elementary stream; and

navigation data decoder, for decoding the navigation data and generating the navigation data stream.

20. The device of claims 18 or 19, wherein the navigation data includes in-stream data and out-stream data, and the device further includes:

20 separating means, receiving the navigation data stream generated by the navigation data decoder, separating the navigation data stream into the in-stream data and out-stream data and outputting the in-stream data to the synthesizing means and the out-stream data to a buffer;

synthesizing the in-stream data from the separating means, video elementary

stream from the video decoder and the audio elementary stream from the audio decoder into the DVD program stream by the synthesizing means; and

recording the synthesized DVD program stream and said out-stream data onto the recording medium in the DVD format by the DVD producing and recording means.

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